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ABSTRACT

Designed to present instructors, moderators, and program coordinators with techniques for better planning, presentation, and evaluation of teleconferencing programs, this manual is based on research and practice findings in the areas of adult education, communications, and learning and listening skills. The characteristics of two-way teleconferencing are reviewed and suggestions are offered for humanizing the techniques used, developing interactive tools for participants, examining message style, and utilizing participant feedback. Checklists for organizing and evaluating teleconference programs and a discussion of the overall effectiveness of teleconferencing are also included. (MER)

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BRIDGING THE DISTANCE

An Instructional Guide To Teleconferencing

by Mavis Monson
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Introduction

This manual is for you, whether you are new to the medium of teleconferencing or experienced in using an interactive system for communication. As an instructor, moderator, or program coordinator, one of your goals is to give participants the best possible program. This manual is designed to help you accomplish this goal. In it you will find techniques on how to better plan, present, and evaluate your programs. It presents the four basic steps to successful teleconference planning.

This manual has been written in response to requests from users of the University of Wisconsin—Extension Educational Telephone Network (ETN) for more information about the "how to's" of better programming. It is based on a study in two areas: research and practice. The research includes related areas of adult education, communications, learning, and listening, in addition to teleconferencing. Programmers who have presented and evaluated scores of programs

during the past 12 years of ETN operation were interviewed. The successful techniques they developed and implemented were compared with the theoretical data to identify relationships between research and practice. The study resulted in a number of suggestions to maximize the effectiveness of program design and the satisfaction of participants in the teleconferencing experience.

The manual looks at the characteristics of interactive (two-way) teleconferencing. It presents techniques which can be applied on a practical basis to programming. A suggested method of program evaluation is also included.

In an effort to simplify the material, and because it has been written for program coordinators, moderators, and instructors, the term *programmer* is used to identify anyone who may fill one of these three roles in a teleconferencing program.

Four Steps To Successful Interactive Teleconferencing

Let's suppose that you have just been asked to provide some programming using a teleconferencing network. Where do you begin? What are some easy techniques that you can incorporate into that first program to make it more effective? Start off with some of the techniques suggested under the four design components on the next few pages. These design components have been identified as important ingredients in using an interactive teleconferencing system. All of the suggested techniques may not be directly applicable to your individual situation, but they may trigger other possibilities which might be adapted to your program.

Humanizing

What is humanizing and why plan for it?

Humanizing is the process of creating an atmosphere which focuses on the importance of the individual and overcomes distance by generating group rapport. It's important to add humanizing to your list of planning considerations because many participants may be all alone at their locations, may never have used teleconferencing equipment before and may be expecting something quite different from the teleconferencing experience. Humanizing techniques let individuals know that, although separated from you by great distances, their needs are important.

Humanizing Techniques

Send A Welcome Letter

Let participants know they are important to the success of the program by sending them a welcome letter before the first teleconference. Include program goals, suggestions for preparing for the first session (such as a question or problem to think about), and some information about yourself (biographical sketch, photocopied picture).

Make A Master Roster

The more you know about the individuals in your group, the better you'll communicate. Use information on preregistration lists to make up a master roster of participants at each location with a line or two of related information about them. Use this roster to focus discussion on the needs and interests of the individuals participating.

Use Of Names

Always call participants by name. Use your roster list. When an individual asks a question, note the name so you can use it again in your response. People like to be recognized by name; it's especially important in teleconferencing.

Let Your Personality Come Through

Be yourself. It's important to come across the way you do in a face-to-face situation even though microphones are used for communicating. Try to form a mental picture of what it's like to be at one of the locations and talk directly to individuals rather than to an "audience out there."

Open With An "Informal Roll Call"

To create an informal, friendly atmosphere and to give participants a chance to become accustomed to using the equipment, ask for a few responses from selected locations. A few exchanges such as, "How's the weather?" or "How many are there with you today?" let individuals overcome any hesitancy in using the microphones.

Participation

What is participation and why plan for it?

Participation in teleconferencing might be defined as the process of getting beyond the technology by providing opportunities for the spontaneous interaction between participants. As communicators, we also want our audience to interact with the information being presented. That's why it's important to encourage involvement in the communication process and it's important to plan time for those opportunities. One of the strengths of teleconferencing is its capability for two-way communication, and providing participation opportunities helps individuals maintain interest and commitment to the program.

Ways To Get Participation

Warm Up Your Audience

Enthusiasm and encouragement by the programmer is vital to getting participation. Help individuals feel comfortable about sharing their experiences. Participants may need more encouragement than in a face-to-face setting, so your role as programmer is important.

Plant Some Questions

Before the program, call a few specific participants and ask them to be ready with a comment or question if the discussion should lag. You can use registration information to identify individuals who would be willing to assume this role. Planted questions can help stimulate a chain reaction among group members.

Use Questions As A Tool

Use a list of highlight questions which summarize the main ideas for each session. Send these to participants before the program. Use this list to kick off discussion by asking group members to pick out a question they would like to talk about in greater depth.

Use Interactive Formats

Use formats which encourage group members to participate. Almost all techniques used in adult education (case study, interview, panel discussion, role playing) can be used successfully in teleconferencing. For example, a series of short case studies can be presented by individuals at the beginning of the program, with discussion following the case studies.

Get Specific Groups Involved

Ask a group at one of the locations to be responsible for the answer to a specific question to be presented at the next session. This responsibility encourages participants to sit down and talk with one another after program time. The technique also fosters cooperation—and there is a built-in leadoff for the next program's discussion.

Message Style

What is message style and why plan for it?

Message style is presenting what is to be said in such a way that it will be received, understood and remembered. In teleconferencing, where participants are receiving the message by listening, it's important to think about the things we know about listening that may help to improve the communications process. Certainly there are some factors about listening yet to be discovered, but there are some guidelines about presenting aural messages which can make presentations via teleconferencing more effective and enjoyable.

Planning Message Style

Preview Your Message

Give a preview of what you are going to say in the form of a short, general overview. Giving individuals an idea in advance of the various parts of a message and how it will be organized (from general ideas to specific examples or vice-versa) helps them in their own understanding and remembering processes.

Use Variety

Plan for short segments. Variety keeps interest levels high and this leads to more active listening. Keep your program fast-paced, providing short segments of concentrated listening (10-15 minutes) alternated with other activities. These activities might range from a simple question-and-answer to the use of a buzz group (adaptation of the six-minute—six-people discussion technique) at each location.

Repeat and Summarize Main Points

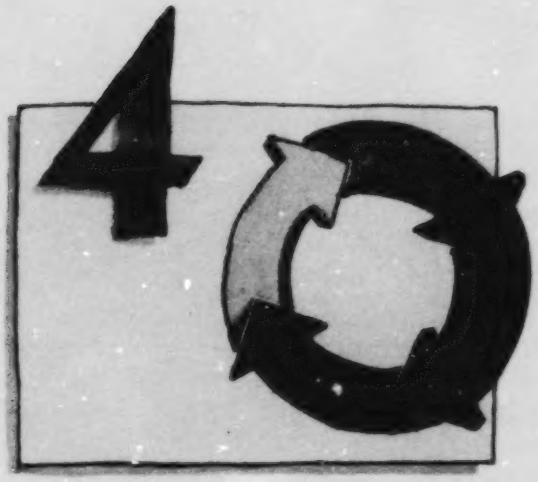
Use repetition and summary to help individuals remember important points. Repeat new words, concepts, or phrases at least three times during an hour program. New words can be spelled on-the-air to aid audience understanding or a printed word list can be added to the packet of materials sent to individuals.

Provide Print Backup

Use print materials to back up your message—an outline, some illustrative brochures, or even a detailed workbook. Print reinforces what we hear and is a permanent record for review purposes.

Send A Summary Letter

The most important summary is at the end of the program. If time runs out, a short summary letter could be used to tie together some of the important points brought out during a panel discussion or interview.



Feedback

What is feedback and why plan for it?

Feedback is the process of getting information about the message which helps you and the participants complete the communications loop. It helps in correcting misunderstandings and filling in omissions. Feedback can also be used in planning future programs. It's important to consider how you will get feedback because teleconferencing settings give you verbal cues only. With group members physically separated from you, you'll want to find ways to get feedback during program time as well as off-the-air.

Ways To Get Feedback

Ask For Feedback

The most basic technique for getting feedback is simply to ask for it during the program. Check on your pacing and on the quality of the reception at the locations. Ask the group if there are questions about the material you are discussing. Because individuals new to teleconferencing may be shy about giving feedback, preassign it, calling several people in advance of the program.

Use On-The-Spot Application Of Information

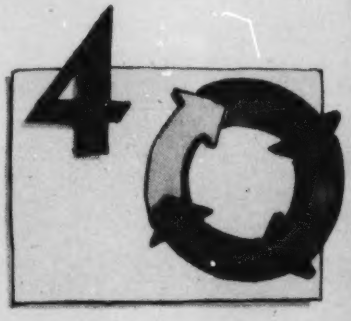
Find out if the material being presented is relevant to participants' situations. Pause several times during the presentation to ask for individual feedback. Ask one or two participants to briefly comment on the value of the information to him or her. Would the person use it? If so, how? Application-of-information feedback stimulates others to think creatively.

Use Group Questions

Instead of evaluating participants individually, use a weekly question which is discussed and answered after program time by groups at locations. A group working to develop a cooperative best answer stimulates rapport and helps give individuals more in-depth understanding. Have group members sign their names to the answer (allowing for a minority opinion) and mail it to you for evaluation before the next program.

Use Written Forms Of Feedback

Use written methods to determine whether your program is meeting its objectives. A postcard questionnaire or a preaddressed mailer with space for comments can be included with print materials sent out before the program.



Listen To Tapes

Teleconferences tend to be concentrated periods of listening and interaction. Many times, programmers miss an important ingredient in the program because there just wasn't time to stand back and be an observer. Listening to the recorded program can be a valuable feedback tool.

a closer look at

Humanizing

As we participate in any venture—educational, recreational, social—we have certain individual needs. These include the need to be considered as unique, to see that personal goals are met, to realize certain expectations concerning our experience. This is the case whether we are participating in a face-to-face setting or via teleconferencing.

In teleconferencing we use a term which describes those actions that lead individuals to feel that their uniqueness is being considered. We call it *humanizing*. Humanizing also involves the creating of an atmosphere in which the distance separating the participants is seemingly overcome because of a one-group rapport.

"Getting-to-know someone" process

An important part of humanizing is the getting-to-know-someone process. One of the goals of humanizing in teleconferencing is to increase the knowledge participants have of you and of each other as individuals. The result is that participants feel more comfortable about making sure their needs are being met. They're more willing to share concerns about the course via an off-the-air phone call, more willing to suggest a change in the series via a feedback form, and more willing to participate during the program by making comments.

There is a direct link between humanizing and participation. Individuals react positively to efforts to reach them with humanizing techniques.

In fact, as you might suspect, there is a direct link between humanizing and participation. Examples of this are found in many studies of teleconferencing. Individuals react positively to efforts to reach them

with humanizing techniques. For example, personal visits made by programmers to meet with participants generated enthusiasm which carried over into program time. There was an increase in the number of questions and comments made during the succeeding program—a greater willingness to share after one of these visits.

Humanizing is important when we talk about the "satisfaction quotient," that is, how well people like teleconferencing.

Just how important is this facet of humanizing? It may or may not *directly* affect communication effectiveness but it's very important when we talk about the "satisfaction quotient," that is, how well people like to communicate using this medium. However, an added benefit of humanizing is that in gaining information about the members of your group you influence the effectiveness of your communications with them. Teleconferencing groups are generally diverse; the more you know about them, the better you can reach them. Knowing more about your group will help you set more realistic program objectives, allow you to choose examples that are relevant, and help you in approaching the presentation style (pacing, vocabulary).

Expectation setting

Expectation setting is another important part of humanizing. Our initial reaction to an unfamiliar situation is to compare it with something we've already experienced. Most people immediately compare teleconferencing with face-to-face settings. Rather than comparing these two ways of communicating, a more realistic approach is to focus on what teleconferencing *is* rather than on what it is not. You as a programmer can help orient your group as to what to expect from teleconferencing—focusing on some of the positive qualities of this medium. For example, it has an informal, approachable quality which lends itself to a more conversational presentation rather than a more formal lecture.

Teleconferencing is interactive—in contrast to other media, it allows immediate interchange between individuals. This human interaction is important in communications.

It's interactive. In contrast to other media, it allows immediate interchange between individuals. This human interaction is important in communication. For example, adults using one-way media in instructional settings say they miss the feedback and reassuring comments

Individuals new to teleconferencing generally follow the lead of the programmer. That is why your ongoing encouragement and enthusiasm are such important factors.

from their instructor and the misery-sharing and mutual learning with their peers. Teleconferencing can provide this immediate interaction.

Its very anonymity can be an asset—this quality increases the willingness of some individuals to participate. Being physically separated allows some group members to feel more relaxed—they do not have to conform to others as they might in a face-to-face setting. Some individuals find they can concentrate more readily—certain types of distractions are not present.

Another one of the pluses is that the sheer diversity of the groups that can be linked by teleconferencing stimulates more interesting discussion. It can join people from great distances with "presence"—giving people the feeling they are in the same room even though they are miles away from each other.

These are some of the positive qualities of teleconferencing. However, individuals who are using it for the first time may have very different initial expectations. Studies show that people's views of what teleconferencing is and what it can realistically do are important in forming positive attitudes towards it. Some of the qualities just mentioned may not be apparent to group members until you emphasize them.

Role of programmer

That is why your role in expectation setting is so important. Individuals new to teleconferencing generally follow the lead of the programmer. You can do much in that first introduction to the medium to help align the group's expectations with realities. Your ongoing encouragement and enthusiasm are important factors in realizing the positive aspects of teleconferencing.

interactive techniques for

Humanizing

In the first section, a number of ways to humanize the experience for teleconferencing groups were described. In addition to those mentioned, several other ways to humanize are suggested below.

Call On Commonalities

Individuals participating in teleconferences typically are diverse in background, education, and experiences. Goals may be diverse also. How can a programmer reach this broad range of individuals and generate a group feeling? Fortunately we know from group dynamics theory that as individuals become aware of how their goals fit in with group goals, they become committed to the group and rapport results.

To develop this awareness takes skill on the part of the programmer. One of the ways is to identify certain commonalities—shared experiences which can become the basis of a common goal or point of discussion among group members. The master roster is the best way to identify possible commonalities among the participants. Several group members may have shared the same or a similar experience even though they are at different locations. Ask these individuals to relate to the group their way of solving a particular problem—stress that even sharing a not-so-successful solution is "okay."

"Let's say we're talking about apprenticeship and I know from my roster that there are 5 or 6 people out there who work with an apprentice or have experience in this area. I'll ask them, 'What do you think about this?—you're engaged in this activity.'"

—Education programmer

"The best thing is to try to get to locations within the first few weeks if you can. I try to cluster every 3, 4, or 5 weeks. I run the broadcast from that location and will stay an extra 2 hours or so talking with individuals."

—Education programmer

Set Up A Cluster Circuit

What is clustering? It's simply choosing one of the locations on the network as an origination point and asking all those participants within driving distance to meet with you there for that particular program in the series. One of the bonuses of teleconferencing is the capability of originating a program from any location on the network, and because we know that teleconferencing "works best" when individuals know something about one another—a strong recommendation exists to meet with groups at a local site.

Participants like it; programmers like it. Personal rapport is built and it's an opportunity to gain feedback that could not be gotten in any other way. It's also a good chance to counsel with individuals who have specific concerns or who might just want to know you better—so if you're planning on using this technique, try to spend a couple of hours before or after your program to meet with group members.

How do you set up a cluster? Most programmers sit down with a map of the area their program reaches. They pick out certain locations as the cluster sites—these are sites centrally located to the other locations. Many programmers set up an itinerary of the cluster locations which they plan to visit during the series. This "cluster circuit" may be announced during the first program or sent to participants in advance. Members have the option of attending the program at their own home bases or attending the session at the cluster site.

A nice addition to carry with you to the cluster location is a headset microphone, especially if you are used to working under hands-free studio conditions. It will allow you to focus your attention on your presentation and the group's interaction. What if you forget the microphone? A book placed on the top of the microphone press bar will give you an "open line" during program time.

questions often asked about

Humanizing

I have large audiences in my teleconferences which are held only twice a year—what humanizing techniques can I use?

With large audiences, it's just not possible to call everyone on a first-name basis or get to know individual interests except in a very broad way. But don't forget the simple ways to humanize—the way you introduce a program by communicating your concern that each individual have a chance to have his or her needs met. Provide a mechanism for this: Give your phone number and phone-in office hours, or provide a postcard or prepaid mailer. Stress your interest in receiving these requests.

Even before the program, you can help individuals identify with you as an individual. Include a picture of yourself with a short biographical sketch, either on the promotional brochure or in a short "welcome" letter.

As you are giving the program, think about the ways you can reach individuals. Use examples which relate to other areas the program reaches—not just local ones. Ask some participants from other locations to contribute to the program content.

Should I have a few participants in the studio with me for eye contact while I do my program?

This question has no one answer. Some programmers like the stimulation that a group provides. Other programmers like to be alone in the studio—in this way they can concentrate on all of the group members. They think that having a group with them tends to make them forget about the participants at other locations.

If you do choose the on-site group option, a few "do's" may prove helpful.

- Remind your face-to-face group to use the microphones so their comments and questions will go out over the network.
- Make sure your instructions and references are tailored to a teleconferencing setting—with more detailed directions being provided.
- Treat all comments and questions alike.

Doesn't humanizing take up valuable air time?
A balance must be struck between making individuals feel comfortable with the system—generating rapport between you and other group members—and in presenting the program material. All programs will benefit from some portion of time spent in making individuals feel that they are an important part of the program.

However, the amount of getting-to-know-one-another and other humanizing will depend a great deal on the size of the group and the objectives of the teleconference. In a class on article writing, for example, where group members' psychological support of one another's efforts is an important part of the growth process, humanizing time is well spent.

Humanizing in teleconferencing

- is directly related to satisfaction
- infuences the effectiveness of communications
- is part of the getting-to-know-someone process
- is important in expectation setting
- focuses on the importance of each individual

a closer look at

Participation

Participation—what is it? How important is it in teleconferencing? How can you get participation in programs? Questions like these are often asked by programmers. As defined in teleconferencing terms, participation is the process which involves getting beyond the technology to allow natural interaction to take place. We want that interaction because we know it's important in the learning/communications process.

Participation and learning

A quick glance at any research journal, whether it be in the field of communications, adult education, or educational psychology underscores the importance of participation. Research in listening and learning reemphasizes the point that active participation by an individual is central to success. The use of participation is probably one of the most consistently found and strongly supported guidelines coming from the research in these areas.

Importance of group interaction

When we look at group dynamics, we again find active participation central. Group interaction stimulates solutions to problems, encourages constructive criticism of solutions, and strengthens the commitment of a group to carry out the decision made. Creativity is heightened. Group problem solving may take longer than that of an individual working in isolation, but the results show more creative approaches and solutions.

If we are concerned with actively changing attitudes, we again identify the need for participation. Research has shown that active discussion by a group is a more highly successful method of changing an individual's opinion than listening to a lecture. Thus, individuals are more likely to change their behavior when they interact with their peers.

The use of participation is probably one of the most consistently found and strongly supported guidelines in the research.

Building in participation formats as a part of the program is a way to help assure that interaction will take place.

Teleconferencing studies parallel the results of those made in other disciplines. Those findings affirm what previous studies uncovered: the chance to actively participate in the learning/communications process is central to success.

Guidelines for participation

As we begin to think more about participation in teleconferencing, it's important to remember two guidelines: (1) participation opportunities and strategies should be carefully planned in advance of program time, and (2) both kinds of participation (group members interacting with each other and individuals interacting with the program material) should be planned for.

Planning for participation is important because it doesn't always "just happen" in teleconferencing. Studies of teleconferencing suggest that there is an automatic training over time in which group members consciously and unconsciously adapt their ways of communicating as they use an interactive system. However, some individuals adapt more quickly to a new situation; others may need more encouragement to do so. Building in participation formats as a part of the program and asking some individuals to be responsible for taking the lead are ways to help assure that interaction will take place.

The second guideline in planning participation is to remember that there are two kinds of participation. Most of us think of participation as the kind in which we *see* an individual or group engaged in an activity of some sort: asking a question, making a comment, jotting down notes. The activity we see gives us confidence that the person is in the process of hearing and remembering what is being communicated.

The participation that we don't observe may be as or more important in the communications process as the participation we can observe.

However, the participation that we don't observe may be as or more important in the communications process. Such things as active listening (anticipatory alertness) and mental work in thinking about a problem are important participation processes.

Because we don't directly observe these processes we tend to forget about them and their importance. By skillfully using questions, both written and oral, and by guiding group members in some mental exercises, you can stimulate this internal participation which is so critical in listening and learning.

interactive techniques for

Participation

This section presents a number of ways to get participation in a teleconference. The techniques are important in shifting attitudes, generating new thinking, facilitating problem solving and stimulating creativity, as well as providing opportunities for group members to play a role in presenting some of the actual program material.

Individual Participation

If you have only one or two individuals at each location, use some of the following techniques to stimulate member participation.

- **Question-And-Answer Periods**
- **Case Studies**
- **Brainstorming**
- **Reactor Panel**
- **Role Playing**
- **Interview***
- **Panel Discussion***

*Described under Message Style section

Group Participation

The following techniques can be used in programs where there are several individuals at one location.

- **Group-To-Group Discussion**
- **Pre- And Post-Activities**
- **Buzz Group**
- **Group Work Session**

Group-To-Group Discussion

This format gives participants at different locations a change of pace by giving them the chance to be the center of the discussion. It gives you, as the programmer, the opportunity to step back and monitor the participation. Get group-to-group discussion going by asking participants at one location to question participants at another location of their choice. You can do this spontaneously during program time, or you might assign the questioner role to a location during the prior session, so participants will be ready with questions. At program time, give that location the go-ahead and allow the participants to begin the discussion by calling on any location they wish to answer their questions.

Pre- And Post-Activities

These activities are useful in getting discussion going at locations. Is one of your goals to help individuals apply what they learned to their own situation? Use a post-activity. For example, after a program on burn care, a nursing clientele group might discuss the material presented during the program and apply it to their own hospital situation.

Sensitive issues which some groups might find difficult to discuss on the air may be handled as a pre- or post-activity. Clergy groups have

successfully used this method to deal with a wide range of issues, meeting an hour before and an hour after the teleconference presentation. An example is the program on conflict management. Participants brought personal case studies. Local leaders (pastors and chaplains especially trained for this role) lead the group discussion at the locations.

A less structured off-the-air activity may be generated by a programmer by asking participants at a specific location to come up with the answer to an assigned question by the next program time.

"I like to get groups discussing among themselves at each of the sites. One way I do this is to ask that one group be ready to respond to a question the following week. I know that after we go off-the-air, everyone will sit down and talk about what answer they'll give next time."

—Education programmer

Buzz Groups

Buzz groups at locations can be used off-the-air when the topic to be discussed is best done in small groups. These small groups formed from a larger one provide the most opportunity for everyone to participate.

Many times called the 6-6 method, buzz groups usually consist of 6 people who discuss a topic for 6 minutes off-the-air at their locations. A later report-back is held on the network. The 6-6 technique is useful following a panel discussion or other presentation to draw out opinions of group members.

In using buzz groups, use the following suggestions:

- Remember to keep the task simple: *Develop one question, make two suggestions, agree on one disadvantage.*
- Give specific time limits (minimum 6 minutes, maximum 10 minutes).
- Make instructions clear and simple, using plenty of repetition.
- Have each group select a leader.
- State exactly what time groups will report back on the network.
- Have topics or questions for buzz groups typed and mailed in advance, if possible, so that each group has written instructions of the group's objectives.

"For my program on wood finishing, I send a packet to every location containing everything needed to learn about staining and finishing wood: linseed oil, paint thinner, penetrating stain, mixing tools, wood, even cloths to apply the stains and finishes."

—4-H Leaders programmer

Group Work Session

This format is used to best advantage in demonstrating manual skills and developing abilities by actually working on a project under the direction of a teleconferencing programmer. Careful planning of these sessions is important so that group leaders at locations can help individuals during the session.

Packets with the necessary materials can be mailed directly to individuals or to a location, with some hard-to-mail items being supplied by participants. Directions on how to proceed are given over-the-air by the programmer, with local guidance provided by on-location leaders.

Individual Participation

Question-And-Answer Periods

"I always provide some way—postcards perhaps—to allow for unanswered questions. I call it 'respect for my audience.' I know they came to the program because they had a question they wanted answered—and I want to be able to get that answer to them in some way."

—Beekeeping programmer

Don't overlook the question-and-answer period as a valuable way to get participation. You may have to adjust the way you handle these periods, depending on the size of the group. With small numbers (under 50) you can encourage group members to simply come on the network by identifying themselves and giving their questions.

With many locations represented you may wish to ask certain geographic areas to respond at one time. Ask for questions from the northeast area, for example. If an individual group at one location has large numbers, questions may be written out, collected and given to a group leader at that location.

When large numbers of people participate in a teleconference, time may run out before all questions have been asked. It's important to provide a vehicle that allows individuals to get answers to their questions. Provide this opportunity by having postcards available at the locations or suggest that participants contact you during certain phone-in office hours the following day.

Case Studies

Case studies can help group members uncover the problems and issues found in a particular situation being discussed. Case studies are detailed reports describing an event or a situation that a group can analyze and discuss. If you choose to use written case studies, a copy should be sent to each participant in advance of the program so that the cases can be read and digested.

An alternative which works well in a teleconference is to have individuals give oral case studies. Phone several participants before the program and ask them to present short case studies (5 to 10 minutes). As a programmer, you can help the group keep the details of the case in mind by summarizing the main points before opening up the discussion. Since case studies tend to bring out strong opinions, they are a good way to generate participation by the group members.

"I consider the use of case studies as a 'pump-priming' activity. I wanted people to interact and we had a very diverse mixture of people—people who don't normally interact in their job situations. So why should I expect them to interact in a teleconference? I wanted that interaction—so I used case studies."

—Social work programmer

Brainstorming

Are you leading a meeting in which you need to generate a maximum number of ideas in a minimum of time? Adapt the brainstorming technique to teleconferencing.

Carefully set up the ground rules so that individuals know how to participate. After introducing the topic and procedures, use the open-mike technique, encouraging everyone to spontaneously participate.

You, as programmer, may need to manage the traffic flow. Be sensitive to attempts to enter the idea exchange. If large numbers of ideas come in at one time, you may have to ask for repeats. Allow silent periods for thinking and creativity, but start up the flow of ideas by reviewing some of those already given. Participants at locations may wish to make their own lists of ideas already given to use as a stimulus for further thinking, but after the program transcribe the ideas from the program tape and furnish a copy to each group member. Set aside a future program for the evaluation of the ideas presented.

"I would suggest calling people in advance and asking them to be responsible for reacting. You could say on-the-air, 'Fond du Lac, Merrill and Sheboygan—I want you as groups to serve as reactor panels.' But that's not quite as successful. You'll have some locations that will not reply. Having an individual responsible works—they know that they are responsible for that portion of the program."

—Communications programmer

Reactor Panel

How do you "get the ball rolling" after a presentation? Use a reactor panel. It's been found in teleconferencing that participation by a few members of the group starts a chain reaction. The reactor panel is made up of a few members who take on the responsibility of reacting to a presentation.

Use the registration list to telephone two or three persons before the program and ask them to be ready to react. They can be at the same or different locations. Deciding on the reactor panel's objective will depend on the program:

- Will the panel be used to stimulate discussion by leading off with questions or thought-provoking ideas following a guest speaker?
- Will the panel serve as an audience representative to interact with an outside speaker when the group is too large for individual questions?

Success depends in part on reactor panel members and the programmer agreeing on the objectives and procedures before the actual program.

Role Playing

How do you make discussion more realistic? Get groups to thinking about how theory is translated into day-to-day behavior? Give adults a chance to try out new ways of acting in a "mistake-free" setting? Role playing helps participants think about and practice human-relations skills under circumstances that approximate real life. Rather than just talking about something, role playing is learning by doing-observing-analyzing.

How do you adapt role playing to teleconferencing? The following ways have been successfully used by programmers.

- *Role playing by group members; analysis by rest of group:* Preassign roles by calling several individuals before the program. Participants generally like to accept this responsibility—they say the anonymity of teleconferencing makes them feel more free to react realistically. Try to limit the number of voices to four at the maximum, so the audience can identify the individuals. (Give the members of the audience a chance to familiarize themselves with these voices by asking each role player to give a short introduction of the role he or she will be playing before beginning.)

  Prepare the group by suggesting things to watch for as the role playing begins. Careful analyzing of what has happened is as important as the role playing itself; analyzing helps the group pull out important issues involved.

- *Prerecorded vignettes of role playing; analysis by group:* The second method of role playing which works well in teleconferencing is to use prerecorded segments. These provide more control in terms of time and of issues brought out. This type of role playing, although not "live," can still be as provocative and can lead to deep involvement in the issues by the audience in the analysis phase.

"We prerecorded four events that agency workers might run into in their day-to-day activities and taped them right on the scene so there were realistic background noises, etc. Each segment was about 5 minutes long and was followed up by an assignment for the next week—What would you have done in that situation?"

—Social work programmer

questions often asked about

Participation

How do you handle silences (pauses) in a program?
One of the first things to remember is not to overreact to a silent period. One of the tendencies of a new programmer or guest speaker is to jump in too soon, without giving the audience time to respond. Not every moment of air-time needs to be filled—participants need time to phrase questions and develop answers.

Use a watch that has a second hand. Wait about 15 seconds before asking again for a response or going on with your presentation. Let your group know that you're allowing this time for responses.

If you would like to get further response and there is none, try these techniques:

- Rephrase your question. This may clarify any misunderstandings and gives a few more moments for participants to phrase an answer.
- Use directive techniques. Call on an individual from the roster (phrasing your question so that an individual has the option of not responding without losing face); or use a commonality of the group to stimulate a comment.

What's a jumping-off question?
A jumping-off question is one that pertains directly to the topic just being discussed and develops as a natural follow-up to it. It's useful to get discussion going.

How can I get participation in that last 5 minutes of the program—when everyone's aware that time is running short?
Use a list of highlight questions. Run down the list and ask participants if they can answer all the questions based on the material presented during the program. If not, discuss one of the questions in further detail.

What are the most important things to remember about participation?

It's important to remember that in most cases, participation will take more careful planning in a teleconferencing situation; that planning is done in advance of program time; and that participation is more directive: people are asked to be responsible for initiating the participation.

Participation in teleconferencing

- increases learning
- can be an activity we see or mental work in thinking about something
- influences opinion change
- affects creativity
- is central to an interactive system

a closer look at

Message Style

All of us have had vast experience as communicators—in the roles of listeners as well as speakers—but we seldom take the time to analyze how these messages have been designed. For example, why do we remember and understand some messages better than others? Message style as a design component concerns the way we present what we want to communicate to others so that the information will be received, understood, and remembered. In teleconferencing, it's especially important that we design messages for the ear as much as possible, taking into consideration guidelines from listening theory.

Listener attention

Basic to our understanding of listening is the rate at which information is processed as compared to the rate at which it is received. The average person speaks at rates of about 125 to 150 words per minute. The brain can easily process words at speeds of 300 words or more per minute. Thus as listeners, we can assimilate the message twice as fast as it can be spoken. Most of us use this extra time to let our minds wander to other thoughts. Persons trained in good listening habits counteract this tendency by using techniques such as formulating mental questions about the subject being discussed or anticipating what might be said next. However, groups we speak to are not likely to have had this listening training. Thus we might realistically acknowledge that we need to find ways to hold and to regain the attention of our listeners.

Basic to our understanding of listening is the rate at which information is processed as compared to the rate at which it is received.

Intuitively we know what the research tells us about listener attention—an interesting speaker will be more likely to get his or her message across. High interest levels result in high levels of learning and remembering. One of the ways to keep interest levels high is to

provide variety: variety in terms of speakers' voices, variety in terms of the way the material is presented, i.e., in ways other than straight lecture.

One way to keep interest levels high is to provide variety—in terms of voices and in terms of the format in which the material is presented.

Listener retention

In helping the participants to remember our message we might also consider what educational theorists call "short-term retention," or the amount of information that can be remembered in the short run. Contrary to what we might think, as the amount of material presented increases in a given time period, the amount remembered decreases. This is probably because some items to be remembered "interfere" with others if a great many are presented in too short a time. What guideline can we use in deciding how much information to present? This, of course, depends a great deal on the subject matter we are presenting, but one rule of thumb suggests that not more than 3 major concepts be presented in a half hour. This allows time to present those major ideas along with plenty of amplifying material.

Listener fatigue

Another aspect of listening theory which relates to the way we design our messages is what is called "listener fatigue." After a long period of uninterrupted, concentrated listening, people say they are tired. This fatigue is probably more psychological than physical—a feeling of restlessness due to lagging interest rather than to actual tiredness—because studies show that giving participants a "listening break" by involving them in some other type of activity will have a positive effect.

Short segment format

As we look at the factors about listening mentioned so far, we can see that they all point to presenting the information in short segments. Let's review why this is so: (1) listeners don't listen very long—short attention spans result from differences in the rate at which we

As we look at the factors affecting listening, we can see that the short segment format is an important part of designing for the ear.

think and the rate at which the information is given by a speaker, (2) listeners hear and remember more of a message if their interest levels remain high—suggesting that variety in the presentation is desirable, (3) listeners may develop so-called listener fatigue if long, uninterrupted periods of concentrated listening are used, and (4) listeners have a limited amount of information they can remember in the short term—suggesting that short "learning bits" may help in processing and storing information. Thus, the short segment format is an important part of designing a teleconference for the ear.

Organization and planning

What else do we know about listening? For example, how important is the way the message is organized? Is a point-by-point presentation better received and remembered? Contrary to what we might suppose, there is no conclusive evidence that this type of organization is necessary.* Thus, within a single presentation, no studies substantiate the idea that a logical presentation is better than a disorganized one, especially if the individual is a "good explainer"—one having the ability to make concepts clear.

Does that mean that planning isn't important? Not at all. If listeners perceive the important points that are to be remembered, their retention of these ideas will increase dramatically. Drawing their attention to these main ideas by simple techniques such as saying, "This is important" or "I want you to remember this" will help individuals in their own information processing. Another way of assisting participants is to present a preview of what is to come in the form of an advance organizer—a general overview giving what is going to be covered and the form in which it will be presented.

If listeners perceive the important points to be remembered, their retention of these ideas increases dramatically.

Repetition can also help to emphasize those main ideas that you wish participants to remember, and repetition is especially important in a

*The exception to this is that in learning a series of concepts that form a hierarchy, we may need to have certain points presented in a logical sequence in order to build upon the information.

teleconferencing setting. Listeners may be momentarily distracted at one of the locations by a door opening or a noise coming in through an open window. They may be unable to grasp the entire phrase the first time they hear it. They don't have the opportunity to go back and refer to that missed portion. Thus, repetition increases the chances that your audience will hear and remember what you want them to know.

Print as a complement

It's not suprising that the perfect complement to a teleconference is some type of printed materials. Outlines, word lists, supplementary articles, bibliographies, and graphics (charts, tables, and drawings) not only help support the audio message by providing a second way to get the message across but serve as a permanent record and reviewing device. Print eliminates time spent note-taking—time which might be more profitably spent in listening and thinking. Print's value as a review device is unquestioned. Because of the usefulness of printed materials, the time spent in their careful development will pay off in maximizing the success of any teleconference.

Because of the usefulness of printed materials, the time spent in their careful development will pay off in maximizing the success of any teleconference.

interactive techniques for

Message Style

Lecture

One of the formats you'll probably choose most often is the lecture, which is popular because it is a very efficient way of presenting factual information. But it can also be, whether face-to-face or via teleconferencing, a very uninteresting way to get information. Dynamic, interesting presentations are the goal of any speaker. However, one of the tendencies for lecturers over a teleconferencing system is to begin the program enthusiastically but eventually trail off sentences or begin to speak in a monotone. To overcome these tendencies and to create more effective lectures, try some of the techniques below.

Maintaining your enthusiasm

- "Interrupt" yourself to change your pitch and volume. Use reminders to do this, for example, on your outline or written script, leave out certain figures or dates or circle some items in red as a signal to yourself to change your voice level and inflection.
- Speak to individuals, not an audience. Mentally picture participants at each location. Speak to them as individuals, not as a group.

- Encourage feedback to generate your own enthusiasm for what you are saying. Mark spots on your outline where you feel a natural question might arise in the minds of your listeners.

- Do use a lead-up to the question. Saying "Any questions?" generally won't bring a response. Provide a natural progression, a jumping-off point for the question.

Maintaining participant enthusiasm

- Stimulate individuals to interact with what you are presenting. Use questions for this. Ask them to anticipate:

  "What factors do you think were responsible for this situation?"

  Ask them to compare and contrast:

  "As I am presenting this next section, think about whether what I am saying makes sense in light of what you already know."

- Get individuals to interact with the print materials you have mailed out. Color code or number sections to make it easier for individuals to locate materials during the program. Ask them to look at a chart, read a list of considerations, react to a statement in an article.

- Vary the pacing of the program. Use faster pacing when reviewing, slower pacing when covering new material.

- Use shorter periods of lecturing intermixed with group feedback. A 10 to 15 minute period is ideal; 20 to 25 minutes is the maximum for continuous speaking by one individual.

- Be realistic about the amount of material to be covered. A good rule of thumb is to present three major ideas in a 30-minute period. Use plenty of amplifying examples.

- Use mental imagery as much as possible. Use examples which help participants picture the point you are trying to make.

"I try to plant seeds at the beginning—that part of the reason we're together on a statewide network is to be able to share ideas, share experiences. As the series goes on, more and more people begin to feel comfortable in contributing."

—Nursing programmer

- Combine your lecture with other techniques. Use a prerecorded vignette or interview; have a guest present part of the material; plan a participant report; call on a panel.

- Above all, relax and enjoy yourself. If you are having fun and are enthusiastic about what you are saying, your group members will be enthusiastic also.

Panel Discussion

A good alternative to presenting the information yourself is to use a panel discussion composed of resource people. This format is especially good in situations where complex or controversial issues are being explored. The advantage in teleconferencing is that not all the panel members need to be with you at the program origination point. They can be brought into the network from various points—home, office (or even, as in a very unusual case—from an airport phone booth).

Panels, simply because they might present very diverse opinions, need the guiding hand of the programmer to help focus the discussion, bring out important points, and provide an overall summary. Here are some "do's" that may prove helpful:

"Panel members don't have to be with you at the program origination point—we patched panel members in from different locations. In fact, one was home eating his lunch, one was in her office, another attended the teleconference with other participants at one of the locations."

—Social work programmer

- Limit a panel to four people for voice recognition by the audience.

- Phone prospective members in advance to test out how well they might come across in a teleconferencing mode.

- Provide panel members with advance information about the audience they will be talking with and a few techniques for using teleconferencing.

- Provide participants with some material to read or some questions to think about prior to the teleconference so that the panel doesn't come on "cold."

- Provide a final summary, either at the end of the program or via a summary letter.

Interview

Another way to vary your presentation is to use an interview format. The interview is ideal for teleconferencing. It adds informality and spontaneity, and helps to keep the pace of the program moving. Not only is the interview an excellent audio technique, but like the panel discussion, it allows the programmer to bring in resource people who might otherwise not be available to the group.

Conducting an interview is quite easy and expensive. For example, a phone call to the guest could be made to office or home. Audience members would be invited to interact with this resouce person after you begin the interview. Or, as an option, a short prerecorded presentation by your guest could be used to kick off a question-and-answer period during which the guest would be "on line" for discussion with the group. Some suggestions for conducting interviews:

- Remind the person being interviewed that short, concise answers are best. Many times, persons inexperienced in using teleconferencing make their replies more lengthy than they ordinarily would face to face. You can help to keep the interview moving and to the point.

- As for a panel discussion, prepare the guest with some background material about your audience, main objectives of the interview, perhaps even a course outline. A sample cassette of a previous program is helpful to guests.

- Prepare your audience to interact with the speaker. Warm them up before the interview by introducing the topic to be discussed. Give them background information about the guest. Ask them to prepare questions in advance.

- Help to make the interview meaningful by making frequent summaries, transitions, and clarifying points and by tying the presentation together.

"An interview of 20 minutes plugged into a program can be very meaningful. I ask participants to send me a list of questions they'd like to have me ask. I use perhaps 6 or 8 selected questions that seem to be very important, with the guest live and on-line. Then we just open up the network so that the participants can talk with the resource person."

—Education programmer

"By going to artists wherever they are via teleconferencing, they can be persuaded to participate in an adult education venture like this—they don't have to lose travel time."

—Music programmer

A Special Kind Of Interview—Celebrity Expertise

One of the most successful ways of introducing individuals to teleconferencing is to give them the opportunity to "meet" celebrities in a specialty field. Because teleconferencing can reach these celebrities without travel on their part, opportunities to include them in programs have been widened. People known nationally and internationally in the fields of medicine, theology, music, and photography, to list just a few examples, have been part of teleconferences.

To assure the success of this special kind of interview, planning is important. Follow the guidelines suggested for the interview format. In addition, remember that although gifted individuals may feel comfortable in their own creative activity, they may not be as comfortable in describing their skill or in teaching it to a group. One programmer opens the program with his guest by discussing a common interest, thereby putting the guest at ease before moving on to his or her presentation.

questions often asked about

Message Style

I know that print back-up material is important, but I use a lot of spontaneous programming—panel discussion, interviews, etc. I don't always know in advance what points will be made. How can I use print?

This is a perfect opportunity to use a summary letter. Pick out the main points brought out in the panel discussion or interview and jot them down in the form of a personal letter to your group members. Your approach might be, *"Here are some of the things I got out of last week's session...."* These letters can be inexpensively duplicated and then personally signed by you.

What about slides or other visuals—are they really necessary?
In some program areas—art, photography, and medicine being examples—a color presentation of visual material may be critical to understanding. In other programs, overhead transparencies of graphs and charts may be indispensable. But in a great number of programs, experience indicates that many slides or overhead graphics are not really essential.

A good idea is to incorporate necessary graphics into the printed materials by using inexpensive photocopying services. It's not only cheaper and easier to do this, but the participants then have a permanent copy for reference. (Note: remember to check copyright guidelines when reproducing printed materials.)

What is a topic outline and how can it be used?
A topic outline, as used in teleconferencing terms, is similar to the outlines used by many speakers (a skeleton profile of the material to be presented) with one exception—the major and minor points are *numbered* so that easy reference can be made to them.

Each participant receives a topic outline before the program. By using the numbers as a reference point, both you and the group members can quickly find any given point under discussion. For example, in section three of the outline you might find under the major heading of "3.00," the minor points, "3.01," "3.02," etc. You refer to these points as you go along. If a question is raised, an individual can easily say, *"Back under point #2.01, would you please explain further...."*

A good teleconference technique, the topic outline is generally typed with lots of white space so that group members can jot down points, references, questions, etc., as they participate in the program.

What about the use of humor in teleconferencing?
Since teleconferencing lends itself to a natural, relaxed delivery style, many times a situation will come up in the program where laughter among group members occurs spontaneously. A deliberate attempt to use humor, however, should be handled carefully. Much subtle humor depends upon nonverbal cues which are taken for granted. With the absence of these cues, many participants may take seriously a comment made in jest.

Message Style in teleconferencing

- we think faster than we listen
- concentrated listening should be presented in shorter "bits"
- variety helps maintain interest
- repetition is important
- previews help in learning and remembering
- printed materials complement audio

a closer look at

Feedback

Feedback is an essential ingredient in the communications process, theorists tell us. A dictionary might define feedback as the return to the point of origin of evaluative or corrective information about an action or process. But so central is this return loop to any communication process that it's seldom consciously thought about. For example, when we interact with a group in a face-to-face setting, subtle feedback in the form of nonverbal cues is constantly helping us gain information about how the message is being received. Yawns or bored expressions are forms of negative feedback which stimulate us to change what we are saying or how we are saying it; erect postures and looks of interest are forms of positive feedback which reinforce what we are doing and saying.

Thus, nonverbal cues form a part of the corrective information that we call feedback. This kind of information is not present in teleconferencing, but feedback can take many forms other than nonverbal. Feedback as a design component in teleconferencing centers around the building-in of mechanisms which can help to complete that communications loop between you and the participants.

Importance of feedback

How important is feedback in teleconferencing? It is an essential ingredient, just as in any other communications process. It helps improve the effectiveness of what we are saying—clarifying misunderstandings and pinpointing omissions. It's a motivating factor—we gain enthusiasm as we interact with the group members. It can lead to a change in our course of action—if the feedback is negative, or reinforce what we are doing—if the feedback is positive. It can help improve future programming.

So central is feedback to any communications process that it's seldom consciously thought about.

Feedback can help us become more effective communicators because it answers such questions as, Is what I am saying interesting or bor-

Feedback helps us eliminate the tendency to "overtalk"—to continue an explanation longer than necessary.

ing? Does everyone understand what I am saying? Did I leave out any important details? Feedback then becomes a stimulus to help us decide on our action, that is, whether to continue in the way we have been or to take corrective measures. Feedback thus helps us to eliminate the tendency to "overtalk"—to continue an explanation longer than necessary because we don't know if our audience received our message or not.

The easiest way to incorporate this kind of feedback in a teleconference is to plan for verbal feedback from the group. After each natural division in the material you can ask questions: Was the message too fast? too complex? clearly explained? Planning for this type of structured feedback is generally the most successful in a teleconference, but there are alternatives. You could use a less structured type by suggesting that members of the group interrupt at any time. If you use this method, remember to be sensitive to attempts by group members to interrupt. Your choice depends a great deal on your delivery style, the content, and the type of group participating—for example, some groups new to teleconferencing may be hesitant about giving feedback and you might wish to ask several individuals in advance of the program to provide it for you.

Feedback as a motivating factor

Feedback also serves as a motivating factor for a teleconference speaker. The reactions that we receive from individuals as we speak help us to maintain our enthusiasm. That's why it's important to reach out to the group members by using the two-way capability of the network. You might choose to have a number of individuals with you as you give the program to get direct feedback. You'll want to remember if you choose this option to promote the feeling that every participant in the teleconference—whether that individual is sitting right next to you or is joining you from a location hundreds of miles away—is important to the success of the program.

Feedback serves as a motivating factor for a speaker—the reactions received from individuals help to maintain enthusiasm.

Feedback is not only important to you but to all the individuals participating. Whether the teleconference's objective is to provide

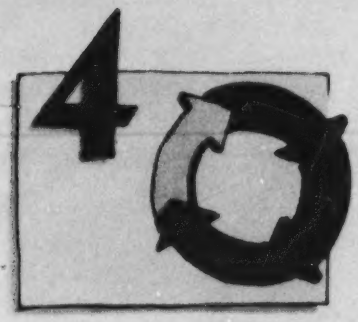
education to a group of students or centers around decision making in an administrative meeting, people want and need to know "how they are doing." Providing both verbal and written channels to communicate this information to them is invaluable not only for corrective action, but also for motivation.

Self-feedback can be an excellent tool to improve next week's or next year's programs. Many programmers use the previous program tape to do some self-diagnosing. What were the strengths and weaknesses of that program? What might be changed in time for the next session? Were opportunities provided for participation? Did individuals take advantage of those opportunities? Did my message come across with enthusiasm? with a natural, spontaneous delivery? This type of self-feedback can be as important as that which we get from program participants.

Feedback during entire program process

Up to this point, feedback has been discussed in terms of the implementation of a specific program. In teleconferencing it's important to gain feedback during each stage of the process: during planning, implementation, and evaluation. One avenue of gaining feedback during the planning stage is to use program-planning committees. During the evaluation stage, the use of local leader critiques, held on the network, can be a valuable source of information. These sources of feedback are important ingredients of the total picture of a teleconference.

In teleconferencing, it's important to gain feedback during each stage of the process: planning, implementing, and evaluating.



interactive techniques for

Feedback

The first section of this manual described briefly a number of techniques which might be used for feedback in teleconferencing. Asking for feedback, written forms of feedback, on-the-spot application of information, group questions, and listening to tapes were mentioned. This section discusses a written form of feedback (the message mailer), using question-and-answer periods skillfully, and participant reports.

Question-And-Answer Periods

Question-and-answer periods have been described in the section on "Participation." Another mention is warranted here because this is one of the times during a program in which you get valuable feedback information from your group members about how well the message is coming across. Also, these periods provide an opportunity for you to get immediate, corrective feedback to individuals.

"We are very protective about allowing enough time for the question-and-answer periods because we think they are so valuable. We feel that this is where a lot of the learning really takes place."

—Medical programmer

Rather than thinking of this type of format as a question-and-answer *period,* it might be better to integrate it into the program. Feedback can be going on during the entire presentation, rather than only during a formalized time period. By asking for an occasional question (or asking one yourself) as you go along, you break up the listening, stimulate thinking, and motivate yourself by getting audience feedback.

Message Mailers

The message mailer encourages participants to communicate their feedback to you. By providing this form as a part of a set of printed materials, you are conveying the unspoken message that you are sincerely interested in obtaining feedback from the individuals in your group.

A message mailer can be very simply designed. It can be of any size and shape. (Note: you may wish to check current post office guidelines for size regulations.) Its basic ingredients are:

- Provision for comments and questions
- Space for name and address of participant
- Preaddressed to you
- Postage prepaid (optional)

The message mailer's exact form is open to creativity. It's been called by such titles as "ETN-O-GRAM" or "OPEN LINE." It can be color coded so that each mailer corresponds to a section in the print materials dealing with a particular topic. If you have a series of five programs, you can easily identify a yellow form returned to you, for example, as dealing with a particular program in the series.

Participant Report

Just as in a face-to-face situation, you can assign individual participants a report or a project. The difference comes in how you use these reports in teleconferencing. You could have each individual give a short report on-the-air, letting others give feedback.

An individual might be assigned, for example, a 5-minute report on how he or she is handling a current problem based on information given during a previous teleconference session.

"I've asked students to read a number of books or articles of their own choosing and then give a brief reaction on-the-air to the one they found most stimulating. The rest of the group then gave them feedback."

—Education programmer

questions often asked about

Feedback

As a new programmer, what's the most important feedback technique to learn for teleconferencing?

Give verbal acknowledgment whenever a comment is made by a group member and ask them to do the same. For example, a simple, "Yes, I see," or "Fine" (or whatever phrase is appropriate), is feedback in its most simple form, but it's important because it tells the participants that the message was received. In the absence of nonverbal cues such as the nod of your head, these short phrases help to guide the flow of the communication process. Correspondingly, remind yourself that when you give a response to a question not to "overtalk." As we are explaining a point, we may give too much information because we're not sure if the individual received our message. Ask for verbal feedback. Give a basic explanation, pause, ask "Does this answer your question, or shall I go on?"

What's a simple written form that might be used for feedback for a single program?

Use a "feedback form" that asks for very basic information and can be filled out in about 5 minutes by the participants. Questions might be as follows:

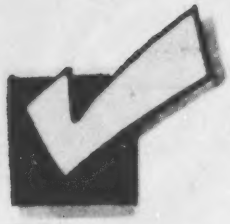
1. What is your overall reaction to this session? Circle one number.

1	2	3	4	5	6	7	8	9	10
extremely unfavorable									extremely favorable

2. What do you think were the strengths and weaknesses in this session?
3. How would you suggest the next session be improved?
4. Other comments, suggestions.

Feedback in teleconferencing

- is important in communicating, learning, motivating
- is important to plan for
- can be verbal or written
- can come from ourselves or others
- should be part of the planning, implementing and evaluating stages



Teleconference Checklist

Optimum Program Conditions:

Optimum program conditions include advance preparation of participants by sending them a packet of materials containing:

- "welcome-to-the-program" letter
- biographical sketch and picture of the speaker/instructor
- instructions on how to operate the equipment
- topic outline or agenda
- objectives of the teleconference
- selected background reading materials
- highlight questions or summary of major points to be covered

Optimum conditions also include a local facilitating leader at each site to make sure that physical facilities are provided which are conducive to teleconferencing, to welcome participants and to help them feel comfortable in using the equipment.

General Preparation:

As a general rule, teleconferences should be better planned and organized than in a face-to-face setting. Planning pays off in greater efficiency and satisfaction. The Teleconference Checklist which follows summarizes the four design steps for planning—before, during, and after a teleconference.

Before The Program:

- ☐ Send out welcome letter with biographical sketch and picture.
- ☐ Make up roster list from preregistrations (for classes).
  Make up and send out "roster information" to group members (for meetings).
- ☐ Lay out a "cluster circuit" for program origination from other locations.
- ☐ Plan some personal visits to participants which dovetail with other travel commitments.

Humanizing

- ☐ Design your participation strategies.
- ☐ Call several people in advance to ask for "planted questions."
- ☐ Set up a reactor panel to get discussion ball rolling.
- ☐ Build participation into printed materials: a list of points or questions to react to, a pre- or post-activity assignment.
- ☐ Ask for an individual case study or report by arranging ahead.
- ☐ Plan any group participation formats—buzz group, role playing.

Participation

- ☐ Decide how you'll cover the material—lecture, discussion, visual presentation.
- ☐ Decide on how much you'll present—a rule of thumb is 3 major ideas in 30 minutes.
- ☐ Plan for variety and short segments. Include an interview, panel discussion or question-and-answer period.
- ☐ Prepare printed materials and visuals with enough lead time to send either to individuals or group leaders.

Message Style

- ☐ Design any written feedback materials—message mailers or feedback forms. Include in advance packets.
- ☐ Decide if you'll do a more formal evaluation (PEC) and begin planning for this.

Feedback

During The Program:

Humanizing

- ☐ Open the program with an "informal roll call." Welcome group members.
- ☐ Help individuals feel comfortable with teleconferencing equipment.
- ☐ Introduce yourself (and other presenters) informally.
- ☐ Use a natural delivery style; let your personality "come through."
- ☐ Mentally picture and talk to individuals—not to an audience.
- ☐ Ask individuals to identify themselves when they speak; use their names in your responses.
- ☐ Stress meeting individual needs; give a number for phone-in office hours.

Participation

- ☐ Plant seeds at the beginning that this is an opportunity to share ideas.
- ☐ Use interactive techniques (case study, role play, etc.) to get participation.
- ☐ Use questions as a participation tool:
  - *•jumping-off questions*
  - *•highlight questions*
  - *•planted questions*
  - *•directive questions (using roster)*
  - *•rephrased questions*
- ☐ Ask a group from another location to lead the discussion at times.
- ☐ Divide large groups into buzz groups for discussion purposes.

Message Style

- ☐ Use short segments (10-15 minutes). Change activity or voices.
- ☐ Vary pacing. Slower: new or difficult concepts; faster: review and less complex material.
- ☐ Preview-present-review. (The old rule still works: *"Tell them you're going to tell them, tell them, tell them you've told them."*)
- ☐ Use printed materials as you go along—get participants to interact with them in some way. (Color-coding or numerical-coding makes this easier to do.)
- ☐ If you use visuals (overhead transparencies or slides) make instructions clear as to which visual is to be projected.

Feedback

- ☐ Be sure to ask for verbal feedback frequently.
- ☐ You may wish to set "ground rules" for how you want feedback. (Should participants interrupt or will you ask at times for feedback?)
- ☐ At the end of the program, use a short "Feedback Form" to get a reading on that program's strengths and weaknesses.

After The Program:

- ☐ Be receptive to any requests expressed during the program—try to adapt future programs to meet them if possible.
- ☐ Follow up on any questions that weren't answered during the program with a phone call or personal note.
- ☐ Include individuals as much as possible in planning for future programs—ask them to send you suggestions or phone you.
- ☐ Keep communication lines open; try to meet with groups or individuals if your travel itinerary permits.
- ☐ Arrange for groups to meet face-to-face at some time for a half-day conference.

Humanizing

- ☐ Use a post-activity. Have groups apply what was presented during the program by discussing it at their own locations.
- ☐ Assign an ongoing project to be done by each individual with a report-back on-the-air at the end of the series.
- ☐ Ask for individual follow-up in time for the next program, for example, *develop a solution to the problem presented today.* Use a few participants' report as the next program's lead-off.

Participation

- ☐ Reinforce the major ideas by asking individuals to give themselves a "self-test" by using the list of highlight questions—can they now answer all of the questions on the list?
- ☐ Use follow-up printed materials for both instructional and meeting teleconferences:
- ☐ For instructional teleconferences: Send a summary letter to repeat and emphasize major points. This is especially important after a panel discussion.
- ☐ For meetings: Send a memorandum to list major decisions and/or suggestions made during the program.

Message Style

- ☐ Phone a number of the group leaders from various locations to ask for their impressions of the program.
- ☐ Listen to the program tape to spot strengths and weaknesses:
  - •Were individuals made to feel welcome and comfortable with the equipment?
  - •Were opportunities provided for participation—did individuals take advantage of those opportunities?
  - •Was the message easy to understand, interestingly presented? what about pacing? variety?

Feedback

questions often asked about

Leading Teleconference Meetings

Meetings held via teleconferencing are efficient and effective. Research shows that teleconferences are effective for information exchange, seeking and giving opinions, problem solving, and generating ideas. Teleconference meetings are generally shorter than face-to-face meetings because of the efficient, business-like manner in which decisions are made. Central to effectively managing meetings are the four design components—humanizing, participation, message style, and feedback. This section focuses on several components unique to a meeting—"rastering," confrontation, and voting.

What is "rastering" and why is it important?

Rastering refers to the development of a base of knowledge about the individuals participating in a teleconference—their communication habits and voice intonations, organizational roles and duties, and personalities—which helps us to understand how the words or responses of individuals are to be interpreted. There are many ways to develop a more complete raster—this personal information about group members—if the individuals have never met before. A good procedure is to have a face-to-face meeting before the first teleconference. Other ways are to send conferees in advance of the meeting descriptions of individuals who will be participating and to have individuals introduce themselves at the beginning of the teleconference with some short biographical information.

People want and need to know with whom they will be meeting and as much as possible about the roles and backgrounds of other conferees.

In any case, a list of participants, organizational roles, and locations from which they will be participating is an essential ingredient of any teleconference—people want and need to know with whom they will be meeting and as much as possible about the roles and backgrounds of other conferees. This list should be mailed in advance to each participant.

What kinds of meetings are best held by teleconferencing?

Teleconferences work best for (1) giving and receiving information, (2) asking questions, (3) exchanging ideas, (4) problem solving, and (5) generating ideas. They are not as strong in situations involving

persuasion or bargaining—where sensitive, subtle negotiations involving nonverbal cues may play an important role. Teleconferences can play an important role in these situations as the mechanism for initial information giving as well as for disseminating the decision made. In this case, teleconferencing is used in tandem with face-to-face meetings.

Teleconference meetings are most effective for exchanging information, giving and seeking opinions, making decisions, and generating ideas.

In a teleconference meeting, if there is a confrontation between two individuals, what's the best way to handle it?

Give the individuals a chance to "save face" by suggesting they wait to talk to each other by phone after the teleconference. Many times they will be willing to compromise something in private that they might not compromise otherwise.

In some types of meetings, it's important that everyone actively participate—what technique will assure this?

One way to see that everyone does participate is to monitor the participation. As each individual makes a comment or asks a question, put a check mark next to his or her name on the roster. Then, towards the end of the meeting, you can quickly see the names of individuals who have not yet participated spontaneously. Call on those individuals who have not yet made a contribution.

How important is print back-up material?

One of the most critical factors in the success of a teleconference meeting is the use of advance and follow-up printed materials. An agenda of the meeting, a roster list of participants, and the objectives of the teleconference, along with any other background information, should be sent in advance to all participants.

One of the most critical factors in the success of a teleconference meeting is the use of advance and follow-up printed materials.

A follow-up memo should be sent after the teleconference to reinforce important points of information. It's especially important to repeat

any major decisions that were made—somehow people need a reminder as to what was actually decided and what future actions need to be taken. The memo can also report the results of any votes that have been taken.

What are some of the ways that a vote can be taken?
With many of the teleconferencing systems available, the technology will allow for a voice vote. Simply asking everyone who votes aye (or nay) to press and speak into his or her mikes will work well if the vote is not a close decision.

A mail-in vote can be facilitated by using a simple, standard scale form which can be used in a variety of ways.

MULTIPURPOSE RATING SCALES

	1	2	3	4	5
A.	☐	☐	☐	☐	☐
B.	☐	☐	☐	☐	☐
C.	☐	☐	☐	☐	☐
D.	☐	☐	☐	☐	☐
E.	☐	☐	☐	☐	☐
F.	☐	☐	☐	☐	☐
G.	☐	☐	☐	☐	☐

For example, a simple yes or no vote on any issue can be obtained by the chairperson asking individuals to check the 1 column if the vote is yes and the 2 column if the vote is no.

If a more quantified rating about a particular issue is desired, participants could use the 1 through 5 columns to vote on a particular issue. For example, in voting on the advisability of adopting an administrative guideline, participants might register their opinions by checking the appropriate columns:

1—extremely unfavorable
2—unfavorable
3—neutral
4—favorable
5—extremely favorable

Meetings in teleconferencing

- are used for information exchange, seeking and giving opinions, problem solving, and generating ideas
- depend on individuals having "raster" information
- are maximized by the use of print back-up materials
- should incorporate the 4 basic steps of teleconferencing in their design

a way to evaluate teleconferences:

Program Evaluation Checklist

After planning and implementing a teleconference, it's important to gather information on how well the program objectives were met. Because teleconferencing is a unique medium for instruction and communications, any evaluation device should be specifically designed to measure the interrelationships of many factors. The Program Evaluation Checklist (PEC) is such a device. This instrument provides information about the strengths and weaknesses of individual programs with an eye to planning future sessions. It looks at six major program areas: content, lecturer, materials, organization, physical facilities, and technical quality. Because the PEC is designed within a flexible framework, it can be adapted to each individual program. This section describes how the PEC came to be and how it works.

Development Of The Program Evaluation Checklist

Programmers in teleconferencing have always sought to gather information about how well their programs were meeting the original objectives. Because teleconferencing is such a unique medium in which many factors influence successful programming outcomes, a search was made for an evaluation device which would measure these interrelationships in a structured way.

The primary aspects of a teleconference were determined to include:

- •Lecturer's behavior - the way the message is delivered by the programmer or guest speaker
- •Program Aide's behavior - the performance of the persons who serve as facilitators at the remote locations
- •Environment - the arrangement of physical facilities, seating, lighting, etc., at remote locations
- •Technical components - the functioning of the technology
- •Program materials - the use of support materials including audiovisuals and printed materials
- •Program process - the involvement of the participants in the presentation and discussion of the program content
- •Program influence - the impact of the program on the participants

Initially, participants were asked to write their impressions of the program by filling in questionnaires consisting of open-ended questions. However, because of the differences in writing ability of individuals as well as their patience in writing down their reactions, the results were very uneven.

The "bank of questions"

It was then that the idea of developing a "bank of questions" was born. The bank would consist of a large number of questions (or statements) relating to various facets of the teleconference, from which a programmer might draw in order to construct an evaluation instrument uniquely suited to his or her program. The bank of statements was developed by researchers in communications and education. Items were developed relating to various aspects of a teleconference: physical facilities, technical quality, lecturer's behavior, etc.

Because teleconferencing is a unique medium for instruction and communications, any evaluation device should be specifically designed to measure the interrelationships of many factors.

During the development process, each item was pretested. This was done to increase the validity (Does the item measure what it is supposed to measure?) and reliability (Does it over time and under many different conditions continue to perform evenly?). The end product—the PROGRAM EVALUATION CHECKLIST (PEC) is an evaluation tool that allows for flexibility while retaining the structure necessary to place confidence in the results.

Using The Program Evaluation Checklist

In evaluating an individual program, the PEC works in this manner. You decide which items in the bank of statements are most applicable to your program. Generally at least five items are used for each aspect of the teleconference (such as technical quality) in order to gain a good "reading" on that subgroup. Sample questions under technical quality might be:

- *"The reception at my location was satisfactory."*
- *"The programmer's voice was clear and distinct as it came over the network."*
- *"The teleconferencing equipment was easy to operate."*

The final PEC instrument will be about 30 items in length, with statements about the content, lecturer, materials, organization, physical facilities, and the technical quality. These statements are then rated on a numerical scale by program participants to determine how closely the statement matches the actual teleconferencing experience.

The Program Evaluation Checklist (PEC) allows for flexibility while retaining the structure necessary to place confidence in the results.

All of the ratings are computerized so that a very accurate reading (not only of each item but of the overall program) is obtained. For example, each statement is analyzed to obtain the mean score and the standard deviation. An even more valuable statistic is the reliability score which is given for each subgrouping. Using both the individual item scores and the overall subgroup scores enables you to see the interrelationships between the various aspects of the program. For example, a low rating in the program materials section may affect the

scores in the content subgroup; a high rating in the technical quality section may affect the scores in the physical facilities subgroup.

The PEC consists of statements about the content, lecturer, materials, organization, physical facilities, and technical quality.

Sample Subscores - Computer Printout

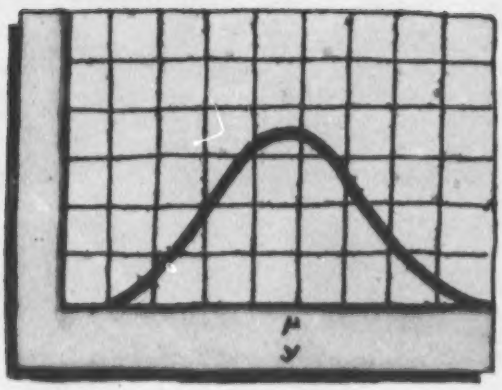
Category	No. of items	% of response	Mean	Standard deviation	Reliability
Technical Quality	5	0.98	8.89	1.90	0.90
Organization	5	0.98	8.14	2.37	0.90
Lecturer	5	0.97	8.14	2.37	0.70
Content	9	0.95	7.15	2.78	0.82
Physical Facilities	4	0.97	7.84	2.18	0.84
Materials	4	0.98	7.43	2.55	0.77
Overall	32	0.97	7.87	2.47	0.93

Demographic information

In interpreting the results of the PEC, you may also wish to look at the demographic information on participants. Questions included in the PEC gather such information as educational background, professional experience, present occupational position, major areas of responsibility, motivation for attendance, age, and sex. The demographic section gives you an "audience profile" which assists in interpreting the data.

Value Of The PEC

The PEC is a way to determine the strengths and weaknesses of current programs, so that improvements can be made in future program design. The evaluation results are primarily used to judge program effectiveness. But some side benefits occur. One is that the very process of analyzing the evaluation may stimulate the reshaping of some of the overall goals and values in the educational/communications process. The PEC also provides one more channel of communications between you and the participants. It is a concrete sign that you are interested in what the individuals have to say about a program.



what the research says:

Effectiveness Of Teleconferencing

Increasing the effectiveness of individual teleconferences has been the focus of this guide—ways to make programs more satisfying and more effective. Techniques such as these are a small part of the larger picture concerning the *overall effectiveness* of teleconferencing. This section presents a look at what we know in answer to the question, Is teleconferencing effective?

Research in teleconferencing is ongoing. The field is new—only a little over a decade old. But in ten years time we have documentation from both ends of the spectrum: research done under laboratory conditions as well as day-to-day application in the field where the final proof lies. Surveying these results, the answer to the question, Is teleconferencing really effective? is a resounding yes, not only for teaching-learning between remote classrooms but for idea exchange and decision making in meetings held over distance.

Studies In Educational Settings

A number of studies across various content areas have measured the cognitive gains of classes taught via teleconferencing. In all cases, teleconferencing was as effective as face-to-face instruction. A few research studies are summarized below.

Mathematics

In Texas, a study in the use of telelecture for retraining elementary school mathematics teachers was made. Pre- and post-tests of achievement, mathematical ability, and attitude inventory were given to individuals taught via telelecture and to individuals taught in a conventional face-to-face setting. There was a significantly greater mean change in content mastery for the telelecture group than for the conventionally taught group.

Hebrew

Studies of adult classes in reading and writing Hebrew were made. The classes were taught simultaneously to two groups in Michigan via teleconferencing and to a control group in Chicago. Each group numbered 20 students. Scores on a midterm and on an oral reading test indicated no significant difference between performance of the three groups.

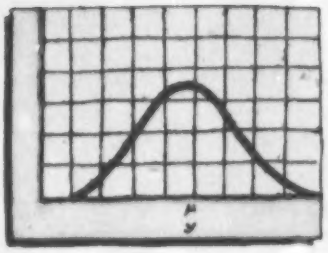
Money Management

Evaluations were made of county extension homemakers' groups in Kansas. The groups were enrolled in a short course on money management. Pre- and post-tests given to the 34 taught by traditional face-to-face lecture and the 37 who were instructed by telephone showed no significant difference in the amount of learning that took place.

Graduate and Undergraduate Credit Courses

A study of the Telenetwork at the University of Kansas was made which involved six lecture-format courses. They were given over the Telenetwork as well as on-campus. Subject matter varied as suggested by the course titles: *State and Local Government, The Junior College, Consumer Issues, Adult Basic and GED Education,* and *Occupation Experience Supervision.* Various measures were made of the Telenetwork classes in comparison with the on-campus classes. Telenetwork instruction and face-to-face instruction were equally effective when criteria were measured from the instructor's frame of reference. When success was measured from the student's frame of reference, there was no difference, with the exception of one class where higher ratings were provided by students who experienced the telelecture method of instruction.

When success was measured from the student's frame of reference, there was no difference, except in one class which rated telelectures higher than face-to-face classroom instruction.



Psychology

Three classes in introductory psychology at the University of Missouri—St. Louis were compared, using telelecture and on-campus instruction. The method used for the study involved a 64-member control group receiving an on-campus lecture, another group of 63, also on campus, receiving a live lecture which was simultaneously transmitted to a third group of 22 in a remote classroom. Tests of all three groups showed no difference.

Mining, Engineering, Modern Mathematics

College classes at West Virginia University, Morgantown, were compared with extension classes taught via telelecture and electrowriter in mining, engineering, and modern mathematics. The analysis of the two groups showed that achievement by extension classes taught via teleconferencing was equal to or significantly greater than that of the students in the on-campus classes.

Studies In Meeting Environments

In-service Training Meetings

A study was made of the use of the University of Wisconsin—Extension Educational Telephone Network (ETN) for in-service training meetings of county extension agents. Agents were randomly assigned to three groups: a control group, a face-to-face group, and a group taught via ETN. Post-tests showed no significant differences in the mean scores of the face-to-face group and the teleconferencing (ETN) group. When these means were compared with the control which received no training, they were significantly higher.

Almost all participants substituted teleconferencing for at least 50% of their face-to-face meetings and over one third substituted teleconferencing for 80% or more.

Management Meetings In Banking

Union Trust Company, a large Connecticut bank, field-tested teleconferencing over a six-month period in 1973, using a stereophonic system with facsimile capability. Twenty-one senior management personnel participated. Almost all users of the system reported that teleconference meetings were as effective as the face-to-face meetings that the teleconferences replaced. This evaluation was reported in questionnaires during the field test and supported by the findings that the teleconferences were generally 30 to 35 percent shorter than the prior face-to-face meetings. In addition, almost all participants in the teleconference test substituted use of the system for at least 50 percent of their face-to-face meetings and over one third substituted teleconferencing for 80 percent or more of their face-to-face meetings.

Characteristics Of Teleconference Meetings

In 1976, researchers associated with Johns Hopkins University conducted an extensive review of the research in teleconferencing, especially as applied to meeting environments. The studies were done both in the laboratory and in the field. The studies paralleled one another, with results identifying areas where teleconferencing was found satisfactory in communication tasks. Those areas were (1) giving or receiving information, (2) asking questions, (3) exchanging opinions, (4) problem solving, and (5) generating ideas. Areas in which teleconferencing was found to be not as strong were in sensitive bargaining and getting to know someone.

The answer to the question, Is teleconferencing effective? is a resounding yes, not only for teaching-learning but for idea exchange and decision making.

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*These references pertain to "Effectiveness of Teleconferencing" section only. A complete bibliography on teleconferencing may be obtained by contacting the author.

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